

7. Descriptions of new Species of Phytophagous Coleoptera.

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Family EUMOLPIDÆ.

Genus CHALCOPHANA.

1. CHALCOPHANA RUFIPENNIS, sp. nov.

Above, shining bright rufous; below, black; legs testaceous; head with a median depression, impunctate, labrum and antennæ light testaceous; thorax finely and very sparingly punctate, together with the head rufous; elytra of the same colour, distinctly and regularly punctate-striate on the disk, more irregular towards the sides, where also three distinct ribs or costæ are visible running parallel to each other. Underside black, with a metallic green tint; legs and tarsi yellowish or testaceous.

Length 4 lines.

Hab. Costa Rica.

Collected by Mr. Rogers.

This species is closely allied to *C. discolor* of v. Harold, but differs abundantly in the coloration of the antennæ, the underside, and legs.

2. CHALCOPHANA COSTATIPENNIS, sp. nov.

Upper and underside rufous testaceous; antennæ black, the basal three joints ferruginous; femora red; tibiæ and tarsi black; head minutely punctured, with a fovea between the eyes; thorax with a few minute punctures; scutellum smooth; elytra each with about seven distinct costæ, all of which, with the exception of the fifth and sixth, commence below the transverse and deeply marked basal depression; the fourth, fifth, and sixth costæ united at a little distance from the apex; the interstices deeply punctate, the punctures united in pairs.

Length, 3 to 3½ lines.

Hab. Chontales, Nicaragua.

This species, although closely allied to *C. discolor*, Harold, and *C. rufipennis* above described, is distinguished from both by the strongly raised costæ on the entire disk of the elytra and by the entirely black tibiæ.

Genus COLASPOIDES, Castelnau.

3. COLASPOIDES VIRIDICOLLIS, sp. nov.

Oblong-ovate, convex, fulvous above; head, thorax, and a broad margin round the elytra bright metallic green; head sparingly but deeply punctate, with a deep longitudinal groove; antennæ with the first six joints, the labrum, and palpi fulvous, the last four joints of the antennæ much depressed and widened, of a fuscous colour; thorax with the anterior and posterior margin gradually produced in the middle, the sides evenly rounded, with a shallow but distinct

oblique depression at a little distance from the anterior angles, surface distantly but distinctly punctate; scutellum smooth, metallic green. Elytra scarcely wider at the base than the thorax, evenly rounded towards the apex, finely punctate-striate, the interstices plane; the entire lateral margin, with the apex to a greater extent, is of a bright, shining, metallic green, while the rest of the surface is of a light fulvous colour, where the punctures are also surrounded by a piceous spot. Underside (with the exception of the thorax and part of the breast) and legs entirely fulvous.

Length 2 to 2½ lines.

Hab. Amazons.

Collection Jacoby.

Family CHRYSOMELIDÆ.

Genus DORYPHORA.

4. DORYPHORA FLAVOGUTTATA, sp. nov.

Ovate, convex, above dark brown with a slightly greenish tint, each elytron with three fulvous spots; head greenish black, sparingly but distinctly punctured, the punctures on the clypeus more strongly marked; antennæ black, with the underside of the first joint testaceous, as well as the apex of the last joint; thorax with the middle of the anterior margin nearly straight, the lateral margins a little thickened and evenly rounded anteriorly, surface but little shining, of the same colour as the head, deeply punctate, more closely so towards the sides; scutellum triangular, smooth; elytra much wider than the base of the thorax, convex till their middle, but rather suddenly declining towards the apex, surface punctured in the same way as the thorax, and partly arranged in double lines of striæ, each elytron with an oval patch near the scutellum, a transverse one in the middle, and another smaller near the apex, the latter spot sometimes obsolete, of a reddish fulvous colour. Underside and legs greenish, shining; the mesosternal process straight and very acute.

Length 5 lines.

Hab. Volcano of Irazu, Costa Rica.

5. DORYPHORA PUNCTIPENNIS, sp. nov.

Oblong, convex, above brown; base, lateral margins, a transverse vitta, and a subsutural stripe near the apex, of the elytra, flavous; head light brown, with a slight greenish reflection, moderately close and distinctly punctured, labrum lighter-coloured; antennæ larger than the thorax, with the first five joints shining brownish green, the basal joint testaceous below, the rest blackish, hairy; thorax narrowed at the base, from there diverging to the apex, the anterior angles acutely produced, of the same colour as the head, very deeply and coarsely punctate towards the sides, on the disk a little less closely, and leaving a longitudinal middle line smooth; scutellum impunctate; elytra much wider at the base than the thorax, closely variolose-punctate, the punctures arranged in striæ towards the suture, and everywhere distinctly visible to the naked eye, of the

same colour as the head and thorax, shining, the base and the lateral margins (with the exception of a small space a little before the middle, where the margin is interrupted by a brownish black spot, which also extends across the elytral seam below), a transverse vitta from one side to the other, and a short streak running from the apex parallel with the suture flavous. Underside brownish black.

Length $5\frac{1}{2}$ lines.

Hab. Volcano of Irazu, Costa Rica.

Collected by Mr. Rogers.

6. *DORYPHORA FLAVOMARGINATA*, sp. nov.

Oblong-ovate, subdepressed, greenish or brownish; head, lateral margin of thorax broadly, elytral one narrowly testaceous; head and mouth testaceous, the former closely punctate in front of the eyes, nearly smooth in the middle, with a greenish V-shaped mark; antennæ reaching to the base of the thorax, with the first four joints testaceous, the rest more or less stained with greenish black; thorax with the front margin slightly convex in middle, and the sides evenly rounded, surface closely and distinctly punctured at the base only, the rest sparingly and very minutely; a subquadrate greenish black patch narrowed towards its base occupies the middle of the disk, leaving the sides testaceous; scutellum flavous, more or less stained with fuscous, smooth; elytra very little wider at the base than the thorax, semiflattened, of a greenish or brownish tint, irregularly and rather closely punctate-striate, with fine transverse and longitudinal scratches, the lateral margin from the shoulder to the apex testaceous, only punctured near the inner edge, the outer half perfectly smooth with the exception of a single row of rather deep punctures near the extreme margin. Body below, with the exception of the mesosternal process, the tibiæ externally, and the margins of the abdominal segments (the latter of which are testaceous) fuscous, shining.

Length $4\frac{1}{2}$ lines.

Hab. Peru.

Collection Jacoby.

7. *DORYPHORA DORSOMACULATA*, sp. nov.

Ovate, regularly convex, dark fuscous; elytra light green, with a pear-shaped sutural patch, fuscous; head very finely punctate, fuscous, labrum flavous, antennæ with the first joint light, the rest darker brown; lateral margins of the thorax rounded throughout, slightly sinuate in middle, more dispersedly but not coarser-punctured than the head, and of the same colour; scutellum subtriangular, impunctate; elytra strongly punctate-striate (visibly to the naked eye), the striæ arranged in single rows, of which the first is short and the seventh disturbed by a few extra punctures near its middle; the interstices also extremely finely punctate, of a light olive-green colour, with the suture narrowly, the lateral margins more distinctly, part of the extreme base, and, connected with it, a common sutural

pear-shaped patch extending to nearly the middle of the length of the elytra, fuscous brown; a narrow light-flavous stripe accompanies the marginal and sutural one through its entire length. Entire underside and legs fuscous brown.

Length 5 lines.

This species was discovered by Mr. Rippön in Nicaragua.

8. DORYPHORA INSULARIS, sp. nov.

Ovate, regularly convex, above greenish black, with a submarginal broad longitudinal vitta light testaceous; head sparingly and finely punctate, labrum fulvous; antennæ rather long, the last five joints flattened and broad, of a greenish black colour; thorax of the same colour, throughout finely punctured with seven or eight deep punctures parallel with the extreme lateral margin; scutellum smooth, triangular; elytra slightly wider at the base than the thorax, punctate-striate towards the suture, the rest of the surface confused-punctate of a more or less dark shining green colour, interrupted only by a broad longitudinal stripe of light testaceous colour commencing a little below the shoulder and extending not quite to the apex. This stripe runs parallel with the extreme lateral margin, but has the inner margin concave a little before the middle, but nearly straight thence to the apex. Underside and legs of a little darker green, shining.

Length $6\frac{1}{2}$ lines.

Hab. Peru.

Collection Jacoby.

GENUS CALLIGRAPHA, Erichs.

9. CALLIGRAPHA VIOLACEO-MACULATA, sp. nov.

Oblong, convex; head and legs ferruginous; thorax and underside greenish, very shining; elytra light flavous, the suture, three transversely placed irregular spots at the posterior half, a median one at the lateral margin, and an oblique, large, bifurcate mark connected with the suture below the base, shining purplish; another short branch of the same colour is sent off from the suture below the middle of each elytron; head very sparingly and minutely punctured, with a triangular-shaped mark at the back greenish æneous; antennæ gradually thickened towards the apex, entirely ferruginous; thorax shining greenish, sides parallel at the base, rounded anteriorly, surface with a shallow fovea near each anterior margin, minutely and sparingly punctate on the disk, with a few deeper punctures near the base; scutellum triangular, the sides a little rounded, greenish black, smooth. Elytra wider at the base than the thorax, of a bright yellow hue, punctate-striate near the suture, the rest of the punctures only plainly visible within the darker markings, the suture broadly, the lateral margins narrowly, purplish; the first is greatly widened in the middle, and connected with an obliquely placed two-branched mark below the base, and another, shorter streak with an upward direction below the middle; besides

this, and two transverse markings at the apex, and placed laterally, is a distinct \smile -shaped spot placed directly below the middle of each elytron. Legs and apex of abdomen ferrugineous.

Length $4\frac{1}{2}$ lines.

Hab. Costa Rica.

Collection Jacoby.

The absence of all smaller spots usually found in the species of this genus, and the peculiar pattern of the elytral markings, as well as the purplish hue of the latter, will distinguish this species from others.

Family GALLERUCIDÆ.

Genus DIABROTICA, Chevrol.

10. DIABROTICA SEXPUNCTATA, sp. nov.

Elongate, subparallel, above dark brick-red, each elytron with three black spots; head flavous, front impressed with a short longitudinal groove, which terminates in a deep fovea, between the eyes, vertex very minutely punctured; antennæ more than half the length of the body, very light testaceous; thorax subquadrate, the lateral margins bulging out slightly before the middle, with all the angles obtuse, surface impunctate, but little convex, of a flavous colour, stained with darker irregular patches; scutellum smooth, triangular: elytra wider at the base than the thorax, and increasing in width towards the apex, distinctly margined at the sides, and closely punctate, the interstices here and there subrugose; they are of a brick-red colour, with a small round spot on the shoulder, another below the base near the sutural margin, and a third behind the middle black. Underside blackish, finely yellowish-pubescent; tibiæ testaceous; claws darker.

Length 5 lines.

Hab. Volcano of Irazu, Costa Rica.

This insect closely resembles in colouring the *D. tripunctata* of Oliv., but differs in the want of the impression on the thorax, besides the different shape of the elytral spots.

11. DIABROTICA VENTRICOSA, sp. nov.

Elongate-ovate, very convex and widened posteriorly, black; head and thorax ferrugineous; elytra with two basal spots, a transverse band in middle and another at the extreme apex flavous; head finely punctate, with two crescent-shaped elevations between the antennæ; the latter very light testaceous, with the apical joints a little darker; thorax subquadrate, very convex, the posterior margin sinuate in middle, and the sides very deflexed near the posterior angles, disk obliquely foveolate on each side, finely punctured everywhere; scutellum transversely impressed near the base, black; elytra very swollen posteriorly, and much widened from before the middle, distinctly punctured, the punctuation partly arranged in striæ, especially so towards the apex, shining black; a large round spot near the scutellum, another small one directly below the humeral callus, a

transverse narrow band in the middle extending from one side to the other, and a still more narrow and shorter vitta at the apex flavous. Body beneath black; legs and tarsi testaceous.

Length 3 lines.

Hab. Panama.

12. *DIABROTICA FUSCOMARGINATA*, sp. nov.

Elongate, convex, light brown above; head, disk of thorax, and the elytral margin dark fuscous or black; head entirely black, impunctate, with a deep fovea between the eyes, the latter very prominent and black, base of the antennæ divided only by a sharp longitudinal ridge; palpi and antennæ entirely flavous; thorax scarcely wider than long, quadrate, distinctly emarginate at the sides, the latter slightly widened before the middle, from there straight to the base; surface very obscurely punctate, shining black or fuscous, with the lateral margins flavous; scutellum also of this colour; elytra much wider at the base than the thorax, slightly widened towards the apex, with a narrow but very distinct margin, surface closely and irregularly punctured, of a light brown colour, assuming a flavous hue towards the apex, the base to a greater or lesser extent, and a narrow stripe near the extreme lateral margins not reaching the apex, dark fuscous. Underside, with the exception of the breast (which is black), and legs entirely testaceous.

Length $4\frac{1}{2}$ lines.

Hab. Volcano of Irazu, Costa Rica.

Collected by Mr. Rogers.

13. *DIABROTICA MULTIPUNCTATA*, sp. nov.

Head, thorax, and a narrow sutural and lateral margin of the elytra rufous; elytra flavous, each elytron with eight small black spots; head impunctate, with a deep fovea in the middle; antennæ robust, dark rufous or fuscous; thorax transversely quadrate, disk bifoveolate, with a black spot in front of each fovea; scutellum black, impunctate; elytra subdepressed, widened behind, flavous, the spots placed as follows—one immediately below the base near the scutellum, a second one below the first but near the lateral margin, three placed transversely in the middle, a triangular-shaped spot directly below, and two others, transversely placed, at a little distance from the apex, the sutural and lateral margins rufous. Body below black, closely pubescent; femora testaceous, with a black line above; tibiæ and tarsi dark fuscous or black.

Length 3 lines.

Hab. Mexico.

Allied to *D. mexicana*, Harold, but principally differing in the rufous emargination of the elytra.

14. *DIABROTICA NIGROLINEATA*, sp. nov.

Elongate, light flavous; head and two longitudinal vittæ on each elytron black; head impunctate, with a deep fovea in the middle; antennæ longer than half the length of the body, with the third

joint scarcely double the length of the second, the middle joints fuscous, the first and three last joints almost white, extreme apex fuscous; thorax quadrate, obsoletely impressed on the disk, the latter impunctate, shining flavous; scutellum black; elytra irregularly and closely punctate, of a little lighter colour than the thorax, the base, suture, a submarginal longitudinal stripe from the base to the apex, and another stripe on the disk of each elytron, not reaching the apex, black. Body below and femora testaceous; breast, tibiæ, and tarsi black.

Length 3 lines.

Hab. Guatemala.

Collected by Mr. Salvin.

15. *DIABROTICA VIRIDIMACULATA*, sp. nov.

Above black; thorax, a round spot near the base, a transverse vitta behind the middle, the apex, and the extreme lateral margin of each elytron greenish; head black, shining, impunctate, with a deep fovea in the middle; antennæ long, filiform, with four middle joints fuscous, the others light testaceous; thorax quadrate, obsoletely impressed on the disk with two foveæ, and a smaller one near the base; scutellum obscure fuscous; elytra widened behind, narrowly margined, surface closely and finely punctate, with a short longitudinal depression near the sides, black, the margins, a large round spot occupying the apex, another smaller one below the base, and a transverse band behind the middle, not quite touching the suture, light greenish. Underside light flavous; breast, tibiæ, and tarsi fuscous.

Length 3 lines.

Hab. Cayenne.

Collection Jacoby.

16. *DIABROTICA GRACILIS*, sp. nov.

Oblong, green, each elytron with the base and a spot near the apex fulvous; head black, impunctate; antennæ with the second and third joints very short, equal, the first joint light green, the second to the eighth fuscous, ninth and tenth joints light flavous, and the apical one black; thorax quadrate, narrowed near the base, disk bifoveolate, bright green, obsoletely punctured; scutellum black, smooth; elytra closely punctate, a little rugose near the sides, of the same green colour as the thorax, the base in shape of a transverse band, and a large round spot near the apex, bright fulvous, the suture in the neighbourhood of the scutellum, and extending to the end of the basal vitta, narrowly edged with black. Underside green; breast, tibiæ, and tarsi black.

Length $2\frac{1}{2}$ lines.

Hab. Brazil.

17. *DIABROTICA NIGROMACULATA*, sp. nov.

Elongate, green; head and five markings on the elytra black; head shining, with the usual fovea in the middle; antennæ dark

ferruginous; thorax of the same shape as that of *D. gracilis*, obliquely bifoveolate, green, impunctate; scutellum black; elytra a little widened behind the middle, distinctly longitudinally sulcate below the shoulder, surface closely punctured, green, an irregular blotch on the shoulders, a small elongate, triangular sutural mark near the base and below the scutellum, and a transverse narrow spot near the apex of each elytron, not touching the margin or the suture, black. Underside and legs exactly as in *D. gracilis*.

Length $2\frac{1}{2}$ lines.

Hab. Ecuador.

Two specimens, collected by Mr. Buckley, in my collection.

18. *DIABROTICA VARIOLOSA*, sp. nov.

Oblong, convex, widened behind, entirely dark green; head and disk of thorax dark fuscous; head impunctate, with a fovea in middle and a highly raised ridge between the antennæ; the latter with the second and third joints very short, the three basal joints light green, the following three flavous, and the rest ferruginous; thorax quadrate, rather convex, the disk with two foveæ and an indistinct transverse fuscous mark; scutellum triangular, black; elytra convex, much widened towards the apex, and coarsely and irregularly variolose and punctured, of a dark green colour. Underside pitchy black, femora green; the breast on each side covered with a longitudinal patch of golden-yellow hair, and the abdominal segments margined with long greenish hair, which also covers the legs.

Length 3 lines.

Hab. Ecuador.

One specimen in my collection.

This species is allied to *D. marginata* of Sturm, but is devoid of the brownish margin round the elytra, and is distinguished by the colour of the underside and legs as well as of the antennæ.

19. *DIABROTICA PERUANA*, sp. nov.

Elongate, convex, much widened behind, black beneath; thorax flavous; elytra flavous, with the base and a large spot near the apex bluish black; head impunctate, with two distinct tubercles in front of the usual middle fovea; antennæ long, filiform, entirely black; thorax subquadrate, impunctate on the disk, with two foveæ near the sides light flavous; scutellum black; elytra of the same colour as the thorax or a little lighter, with a broad band at the base, not touching the lateral margins, and a large subquadrate spot behind the middle bluish black; the punctuation on the disk very distinct and even coarse towards the base. The entire underside with the legs and tarsi black, finely covered with yellowish hair.

Length $3\frac{1}{2}$ lines.

Hab. Peru.

20. *DIABROTICA SEXPLAGIATA*, sp. nov.

Elongate, parallel; head and thorax testaceous, the latter with a

longitudinal stripe on each side fuscous; elytra dark brown or fuscous, the lateral margins and six roundish spots, 2, 2, 2, whitish; upper part of head finely punctured, in some specimens obscure, of light brown colour, lower part light testaceous; thorax transversely quadrate, the sides rather broadly margined, surface bifoveolate, impunctate, lighter or darker testaceous, with a longitudinal black stripe near the lateral margins; scutellum testaceous; elytra closely rugose-punctate, dark fuscous, with the margins, the apex, and 6 large roundish spots, placed transversely in pairs, whitish. Underside and femora testaceous, with the tibiæ and tarsi fuscous, in one specimen entirely testaceous.

Length 2 to $2\frac{1}{4}$ lines,

Hab. Peru, Panama.

Genus CÆLOMERA, Chevrol.

21. CÆLOMERA ATRO-CÆRULEA, sp. nov.

Broadly ovate, widened posteriorly; head, thorax, and apex of abdomen rufous; elytra bluish black; antennæ and legs black; head more or less deeply and longitudinally depressed, with a narrow mesial groove through its entire length, finely punctate and flavous-pubescent; antennæ with the third joint double the length of the fourth, black, the extreme base of the first joint flavous; thorax broadly rounded at the sides, about twice as broad as long, surface deeply depressed on each side, with a longitudinal groove in the middle of the disk, throughout closely punctate, and covered with short flavous pubescence; scutellum rufous, the apex broadly rounded; elytra much widened towards the middle, distinctly marginate, the sides suddenly deflected from the shoulder, so as to form a distinct longitudinal ridge, which limits the disk of each elytron laterally to the extent of its entire length, surface extremely closely punctate-rugose. Underside dark fuscous, the last abdominal segment rufous; legs and tarsi black.

Length 4 to $4\frac{1}{2}$ lines.

Hab. Peru, Panama.

Notes on previously described Species.

CRIOCERIS AUSTRALIS, Jacoby, P. Z. S. 1876, p. 807.

This species, described by me in 1876, is (as a comparison with the type in the British-Museum collection, of the existence of which I was previously not aware, has convinced me) the true *C. nigripes* of Fabricius. Lacordaire's description of that species (vol. i. p. 573), which I took as a guide, and which made me believe that the insect before me was a different species, is totally at variance with the insect of Fabricius; and my description is therefore the right one, although the name *australis* must stand as a synonym.

RHYPARIDA MADAGASCARIENSIS, P. Z. S. 1877, p. 512.

RHYPARIDA COSTATIPENNIS, P. Z. S. 1877, p. 513.

